

# MICHIGAN FARMER.

Devoted to Agriculture, Horticulture, and Domestic and Rural Affairs.

NEW Perfect Agriculture is the foundation of all Trade and Industry.—Liebig. SERIES.

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W. ISHAM EDITOR.

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in advance.

## Readers of the Michigan Farmer,

In the last number of the Farmer, you were informed, that Mr. Hurlbut, who has, for three years past, so ably and so acceptably presided over its columns, with that number terminated his editorial labors. That you will deeply regret the necessity which has lead to this step, we have no doubt.

That you should, at the same time, feel some solicitude in regard to his successor, lest the interests of the paper should not be sustained, is natural enough. And that the subscriber, in taking his place, should participate in that solicitude, lest he should not bring to the task he has undertaken, all the qualifications requisite to the proper discharge of the duties and responsibilities which it imposes, is equally natural.

Notwithstanding he has the advantage of long experience in this department of labor, and re-enters it an enthusiast in the cause of agriculture—notwithstanding a considerable portion of his life has been devoted to practical husbandry, another considerable portion of it to intellectual discipline, and the whole of it to the acquisition of general information, still he feels a sort of shrinking away from the task before him, as tho' a voice of warning against rashly and thoughtlessly entering upon it, were sounding in his ears.

And yet, presumptuous tho' it be, he feels himself impelled to go forward, nor can he persuade himself to turn his back upon an employment so congenial to his taste, his habits, and the bent of his inclinations. Far happier would he be, to be instrumental in promoting the bloodless triumphs of husbandry, than if he had lead embattled legions to victory on the field of death.

In the conduct of the Farmer, he will endeavor

or to exercise a wise discretion in the admission of articles to a place in its columns. That every article should be adapted to every man's particular case, it were preposterous to promise, on the one hand, or expect, on the other. But that he should hold himself editorially bound to guard, with sacred care, against the intrusion of articles which will do *no class* of his readers any good—that articles characterized for sound argumentation, with its facts and its inductions, in the form of plain common sense, tho' in a homely garb, should always have the preference over those which abound mainly in frothy declamation, or learned nonsense, is but a reasonable requisition. Thus he stipulates, and thus will he endeavor to furnish the cultivator of the soil with principles which he may every day see carried out into practical exemplification before his eyes, and which may lead him to new and profitable applications of the resources at his command.

This is an age of light, of discovery, and of progress, in this as well as in other arts and sciences. Light mingles with light, discovery treads upon the heels of discovery, and progress finds no place to rest the sole of her foot. Facts are continually accumulating on every hand, and will continue to accumulate, as long as the world shall stand, which have only to be classified and reasoned upon, to lead to the most important results. Already has agriculture been crowned as a science. The discoveries of agricultural chemistry, have placed the laurel wreath upon her brow, and she stands forth the embodiment of principles which serve as an unerring guide to the husbandman, while side by side with her, is advancing with equal pace, improvement in the implements of husbandry. And may light continue its accumulations, discovery her triumphs, and progress never tire, until the whole earth, smiling under the labors of the husbandman, shall teem with the fruits of peaceful industry, and "the sword shall be beaten into a plough-share and the spear into a pruning hook."

WARREN ISHAM.

### Changes in the Farmer.

It is announced in the prospectus, that the Farmer will hereafter be published semi-monthly as it formerly was, at one dollar a year. From personal intercourse with a large number of the readers of the Farmer, we are satisfied, that both their wants and their wishes demand the change. By this arrangement we shall be able to give, a bird's-eye view of passing events, so that our readers may have, in a condensed form, a register of every thing important in the history of the times. In a monthly, general and market intelligence, are of little value.

We design also a slight innovation not indicated in the prospectus, viz. the introduction of a department devoted to all important recent discoveries and inventions, which will be alike interesting to the farmer and mechanic, and indeed to every class of the community.

Do not object, gentle reader, that you get the news in other papers, and do not want the space in the Farmer devoted to these objects. We want you to be kind and considerate on this subject. The space thus occupied, will not be missed, and we are satisfied from personal observation, that such an arrangement would induce great numbers to subscribe, who would not otherwise take an agricultural or any other paper. And do you not desire to see the Farmer sustained, and extending far and wide the sphere of its usefulness? And besides, would not this be a cheap way of ridding yourself of so many annoying calls for the loan of your papers? And further still, is not such an abbreviated record of the past, in some permanent form, the very thing you need for future reference?

Although our editorial labors commence with the present number, the paper will not, of course, be expected to assume the distinctive form which these innovations will give it, till the new volume commences, which will be with the next number.

### The next Volume of the Farmer.

It is close at hand, and there is no time to lose, as we want all subscribers for the year to commence with the first number. We trust, that all the old subscribers will continue their subscriptions—we cannot spare one of them, and we want a great many new ones, and must have them.—We want the old ones, on whom so much culture has been bestowed, to be fruitful and multi-

ply, so that each one will yield at least a single new one. Is this too much to expect? And how very easy a thing would it be, for every one of them to increase four-fold, and thus, secure to themselves the benefits of the club arrangement—shall it not be done?

With the exception of the innovations which we propose to introduce, the present number may be considered a *specimen*, a sort of *first-fruits* of our labors in this nook of the editorial field, save that we are placed somewhat at a disadvantage by the encroachments of the title page and table of contents. Read it then, sit in judgment upon its merits, and if, after making all due allowance for human imperfection and human frailty, it be found worthy, will you not, for the sake of the cause in which it is embarked, as well as for your own individual benefit, make an effort to extend its circulation? You, who have patronized it heretofore, know how to appreciate the value of a well conducted agricultural journal, and you are the very ones to induce others, who may not have been thus favored, to come forward to its support. Will you do it?

### Advantages of Scientific Husbandry.

Prof. Kirtland, of Ohio, in illustrating the blunders of art as opposed to science, mentions the case of a man, a despiser of book-farming, who, after draining a peat marsh, undertook to cultivate it, expecting, from the depth and blackness of the soil, that it would yield him a rich return for his toil, but who learned in the end, to his sorrow, what science might have taught him before, that although such soils contain a very large proportion of the elements of nutrition, those elements cannot be made available, until a process of decomposition and re-combination in a compost heap, or by some other means, has been gone through with.

"But still," says art, "this business of forming compost to enrich my farm, is attended with too much trouble and expense. I can never resort to such an experiment."

Science replies—"You have lived, for a few years, on the native richness of your soil, which was the accumulation of a thousand years, from the decay of animals and vegetables. It is now nearly expended, and you must either adopt a scientific mode of tilling your lands, remove to Iowa or Texas, or starve where you are."

"To the eye of the scientific agriculturist,

these marshes present the means provided by nature to enrich our impoverished upland, and he foresees the day when they may furnish a portion of the fuel needed in this cold climate."

By the way, an instance occurs to us which may be adduced to show, that after the peat has been removed and formed into compost, for the purpose of enriching uplands, the muck which remains, constitutes a soil of great fertility. Some few years ago, in the course of a very dry season, a fire which had been accidentally kindled, worked its way into an extensive marsh, consuming to ashes, as it proceeded, its entire bed of peat for the space of several acres, laying entirely bare the loose muck beneath. The marsh had been previously drained. Upon this muck, corn was planted without ploughing, and oats sown and simply harrowed in, and the result in both cases was a very heavy yield.

Whether the alkali contained in the ashes of the peat, neutralized the acidulous properties of the soil, and thus rendered its elements of nutrition available, or whether the native muck, without such superadded agency, was competent to the result, does not fully appear. Our own opinion is, however, that the admixture of alkali was highly beneficial, although without its aid, the soil might have developed its productive properties to a greater or less extent. If it was not thus competent, then all that is necessary to render it so, in cases where the peat is removed, is to apply some alkaline substance.

But would not this be a cheap and easy way to get our marshes into a state of cultivation—do you ask?

Whether it is practicable thus to consume the super-incumbent peat of our marshes generally, is matter of doubt, though in many cases, in very dry seasons, it may be entirely practicable. And if it be practicable, whether the advantage gained would compensate the loss of so valuable a substance, may also be matter of doubt. "Short cuts" are not always the best. They sometimes decoy the unwary into quagmires, from which they with difficulty extricate themselves.

The marsh above alluded to, is located just across the Michigan State line, in the State of Ohio, near Toledo.

**Important Facts.**—Wheat is known to be the most nutritious of all grains, and it is more or less nutritious according to the quantity of gluten it contains. This quantity may be varied both

by climate and manure. For instance, a loaf of bread made from two pounds of Alabama flour weighs three and a half pounds; while a loaf made from the same quantity of Cincinnati flour, weighs only three pounds, making a difference of 22 per cent, so that every five barrels of Alabama flour are equal to six barrels of Northern flour. The proportion of gluten, however, may be greatly increased by the application of appropriate manures. Its relative proportion may be nearly doubled by manuring the soil with ox blood, or human excrements, and increased to a greater or less degree by the application of other manures more or less appropriate.

Another fact established by chemical analysis is, that very white, superfine flour consists mostly of starch, and contains but little gluten, most of the latter having gone off with the middlings. Very white superfine flour then, is but poorly adapted to the purposes of nutrition, and should never be used separate from the middlings, in which nearly all the muscle, brain, and bone-forming elements reside.

#### **Diseased Potatoes—Chemical Analysis.**

*How to counteract the tendency to Rot.*—The celebrated Dr. Une, author of the Dictionary of the Arts and Sciences, has ascertained, by a series of experiments, that the disease in the potato consists in the conversion, by decomposition, of a portion of its starch into sugar, and of its albumine into an acrid, offensive brown substance. The juice of potatoes which were characterized by brown spots in the interior, and a thickened, brown skin, he found to have "a mawkish sweet taste, followed by a sense of pungency on the tip of the tongue." By the application of chemical tests, he found the proportion of saccharine matter, (sugar,) in such potatoes, to be from three to five per cent, while no saccharine matter could be detected in the sound potato. He further verified and established the fact, by placing the expressed juice of the infected potato, as also its infusion, in contact with a little yeast, at a fermenting heat of 80 to 90 degrees Fahrenheit, when a fermentative action soon began, and in an hour or two, became so brisk as to throw up a thick, creamy froth. Thirty-six hours afterwards, the liquor, being considerably diminished in specific gravity, yielded, by distillation, alcohol, equivalent to about four per cent of sugar in the potato. The quantity of saccharine matter



varied much according to the state of the disease.

To counteract this tendency to fermentation and consequent putrefaction, necessarily resulting from the presence of saccharine matter in the potato, the Doctor recommends, that potatoes, when dry, be secluded, as far as possible, from a moist atmosphere. To this end, they should be laid upon a bed of straw, and the whole pile be interspersed with coarsely bruised unslaked lime, and covered thoroughly at the sides and on the top, from the external elements. Unslaked lime greedily absorbs one-third of its weight of moisture, and will bring the air between the potatoes, into a perfectly dry state—a condition in which no decomposition can possibly take place.

Care, he thinks, should be taken to keep their skins entire, so as to exclude atmospheric oxygen and humidity. It is well known that the sugar in ripe grapes, undergoes no change while the skin is entire, but the moment it is pricked, the grapes begin to ferment and speedily spoil.

The above facts and deductions, correspond, we believe, with the observations of our farmers, it being a common remark among them that potatoes are exposed to the rot about in proportion to the moisture of the soil in which they are raised. But the mode of preserving them after they have been taken from the ground, does not seem to be so well understood. The process is a cheap and easy one, and within the reach and the means of all. Try it.

#### The Golden Time.

Is there no golden time for sowing wheat, so that it will be secure against the ravages of the Hessian fly, in both fall and spring, as well as against disaster from the rust? If to avoid exposure to rust, wheat be sown early, it becomes a sure prey to this insect in the fall, in every infected district, and if, to avoid this calamity, late sowing be resorted to, the crop is not only liable to the same calamity in the spring, but to almost certain destruction from the rust, insomuch that the hope of its escape is indeed a forlorn one.—And is there no golden medium between the two extremes? Let facts be heard in reply to this question.

From the natural history of this insect, it has been ascertained, by personal observation, that in this climate, it ceases depositing its eggs about the 20th of September, and that if any are deposited after that time, they are so few as to re-

sult in little or no injury. And in accordance with this well attested fact, farmers have generally remarked, that wheat sown after the above mentioned time, has generally escaped the ravages of the destroyer in the fall.

So far our farmers seem to have a good degree of enlightenment on this subject. If we may judge, however, from the intercourse we have had with them, but few of them are familiar with the fact, that one time *rather than another*, after the 20th, is the golden time. They seem not to have learned, that wheat sown between the 20th and the 25th of that month, will, in ordinary seasons, come forward sufficiently in the fall to secure it against material injury from either of the above named causes in the spring. That such is the fact, however, we have the concurrent testimony of every farmer within our knowledge, who has tried the experiment, or whose attention has been turned to the subject. An instance came under our own observation a few years since, in which, a field of wheat, sown within that time, escaped calamity entirely, while every other field in the neighborhood was destroyed.—An instance was recently related to us by an intelligent farmer in Macomb Co., in which about half a field of wheat was sown a little later than the other half, and although both parts were sown within the compass of a single week, the part first sown was totally destroyed, while that last sown yielded a good crop. In the former case, the plant must have made its appearance before the insect had done depositing its eggs, and in the latter, after that process had been completed, but soon enough to bring it forward sufficiently to secure it against disaster in the spring.

Those who are extensively engaged in wheat-growing, may find it difficult to finish their seeding in so short a time, but they had better, *far* better, greatly curtail the extent of their wheat husbandry, or make special arrangements to meet the emergency, than thus to hazard, as in a game of chance, the loss of both labor and seed, besides exposing themselves to the pains of almost certain disappointment.

The above, we think, is a good expedient for those who cannot be persuaded to adopt the "more excellent way" of avoiding the evil which we shall propose in our next number.

By the way, we found one farmer in Oakland Co. in our late excursion, who had determined upon a trial of the decoy system, in the hope that

that might prove to be the true golden expedient. The plan is to sow a small patch of wheat in the middle of a field, (an acre or two or three, according to the size of the field) with a view to decoy all the insects in the neighborhood into it, and having got them fairly bated, to spring the trap upon them, by plowing them under, the wheat having been sown early enough to bring it forward sufficiently to accomplish the object by the time the proper season for seeding comes on. This expedient is recommended by high authority, and we should like to see it fairly tested. If, it should be equally successful with the method recommended above, and no more so, the former would have the advantage of involving less trouble and expense. As an offset to this consideration, however, it has been suggested, that the benefit to the soil from plowing under the wheat, would compensate for the additional expense, insomuch that the difference would be made up in the increased yield of a single crop. An experiment or two, would settle the question.

#### Subsoil Cultivation—its advantages.

We are gratified to learn, that some of the farmers of Michigan are turning their attention to the subject of subsoil ploughing, and that the experiments they have made, have been so far highly satisfactory; we trust they will lead to a general adoption of the system. Its advantages are various and important. We will expatiate a little upon some of them.

Among the advantages of subsoil cultivation, may be enumerated the *increased tenacity*, which loose, friable surface soils thus acquire. Their capacity to retain the elements of nutrition being thus increased, by admixture with the more tenacious subsoil, operates of course, to prevent the escape of those elements by the leaching process on the one hand, and by evaporation on the other.

Another advantage of this kind of cultivation is, that it enables plants to fix their roots deep in the earth. The roots which would otherwise be forced from their natural course into a horizontal direction, and compelled to spread themselves out near the surface, exposed to injury from every fluctuation of the weather, get leave to work their way downwards into the earth, and are thus protected in a great measure, against the influence of drouth.

It is, perhaps the most prominent advantage of

sub-soil cultivation, that it renders vegetation comparatively independent of the changes of the season, opening a passage downwards, not only for the roots, beyond the reach of drouth, but also for the surplus water, (which would otherwise evaporate into the atmosphere, carrying with it much of the soluble parts of the soil,) where it remains in deposit, to be drawn towards the surface in time of drouth.

Another advantage of subsoil cultivation is, that the subsoil frequently contains ingredients essential to the growth of vegetables, of which the surface soil is in a great measure destitute. Some ingredients of the soil have a constant tendency to sink down below the depths of the common plough, as lime for instance, and some other substances.

And who does not know, that some plants, such as turnips, strawberries, &c. will not grow to any purpose at all in an old soil, or one which has been cultivated for a series of years, manure it as you will—and that they will grow in great perfection upon a new, virgin soil? Every person capable of observation, must have noticed this predilection of these vegetables for a new soil? The reason is obvious. Certain ingredients essential to their perfect developement, had either been exhausted, or had sunk into the subsoil, ingredients which ordinary manure does not contain. To find a spot then where they will take root and flourish with new delight, and in full perfection, we have only to turn up the subsoil of the very field, on which they had previously been cultivated to no purpose.

Loose, friable soil is moreover, comparatively, a non-conductor of heat, and of course, not as liable, in hot weather, to be parched by the heat of the sun, nor in cold, to be chilled by the escape of the heat it has imbibed. The greater its depth, the greater the advantage from this source.

Recent experiments have developed another advantage of this mode of culture, demonstrating the fact, that instead of plowing three times for wheat, it is much better to plow but once, provided it be done very deep, and with narrow furrows, the cultivator being used for clearing the weeds and covering the seed. Complete success has crowned these experiments, so far as they have been made. Whether they have been extended to clays we do not know, nor whether they would succeed as well on such soil. The

good results already obtained, will, of course, encourage further experiments.

And yet another, and by no means unimportant advantage resulting from this mode of culture, is that manure may be covered deeper, and thus its nutritive qualities be prevented from evaporating into the atmosphere.

**To make good Winter Butter.**—A correspondent of the Boston Cultivator, who appears to be extensively engaged in the dairy business, writes, that after having tried various expedients in vain, he has at length hit upon the true one of *scalding the milk*, and thus destroying the effects of frosty feed in fall, and dry feed in winter. Since the adoption of this method, his butter has been pure sweet, yellow, and rich, even more so than in summer, whereas, previously it was white, frothy, and sometimes bitter.

**Cultivation of Peppermint.**—It may not be generally known to our readers, that the cultivation of peppermint, has been successfully attempted, and is attracting considerable attention in different parts of our State, and especially in the counties of Calhoun and St. Joseph. Already are the annual avails of the crop in the State, estimated at sixty or seventy thousand dollars, and those who have been engaged in it, are said to have realized great profits, without having their attention materially diverted from other branches of husbandry. The plant delights in a rich, moist soil.

**Vegetable Curiosity.**—Oaks are said to be shown in both London and Amsterdam, as remarkable curiosities, which have been reared by Chinese gardeners, and are only a foot and a half in height, although their trunk, bark, leaves and branches evince a venerable age.

The above, although cited in a standard chemical work (Leibig's) to illustrate the influence of soil and climate upon vegetation, may appear incredible at first glance, but when we consider the difference between the dwarf burr-oak of our plains and the giant oak of the mountain forest, even so diminutive a specimen as the above, should not be considered without the range of possibility.

**A Monster Cheese.**—E. Follett, of Licking co. Ohio, has made a cheese, the past season, from four days milk of one hundred cows, which is four feet in diameter and sixteen inches thick, and weighs one thousand pounds.

**Conversion of Peat into Coal.**—A patent has recently been obtained by Mr. Williams, of Dublin, Ireland, for compressing peat into a dense mass, so as to resemble coal. It is said to be superior to coal in its properties of producing heat by combustion, forming an excellent charcoal, or coke. It is asserted, that this charcoal is much more combustible than that of wood. Mr. Williams has found, that with ten cwts. of pit coal, and two and a half cwts. of this fictitious coal, the same quantity of steam can be generated, as with seventeen and a half cwts. of pit coal alone.

The process is as follows: Immediately after being dug, it is triturated under revolving edge wheels faced with iron plates, perforated all over the surface, and is forced by the pressure thro' these apertures, till it becomes a species of pap, which is freed from the greater part of its moisture by a hydraulic press. It is then dried and converted into coke, in the same manner as is done with pit coal.

**Changes in the Composition of Milk.**—It appears from chemical analysis of milk by Prof. Playfair, that the proportion of butter and cheese in the composition of milk is greatly affected by the exercise to which the cow is subjected. At the first experiment, the evening milk contained 3 and 7-10ths parts of butter in a hundred parts of milk, and 5 and 4-10ths of casein, (which is the cheesy part of milk,) the cow having been exercised considerably during the day. The next morning, the proportion of butter was 5 and 6-10ths parts of butter, and only 3 and 9-10ths of casein, the cow having ate nothing, and been kept quiet through the night. In several succeeding experiments, the cow was confined in a stall, and the result did not vary much from that obtained in the last of the above instances, when the cow had enjoyed a night's rest.

It appears then, that the conditions necessary for the production of butter are very different from those which produce cheese, the former being a rich pasture, which induces quietude, and the latter poorer pasture, with as much range as possible, thus furnishing a temptation to ramble.

For the Michigan Farmer.

#### **The Wheat Crop in the County of Ionia.**

**Mr. Editor:**—Believing that a few facts in relation to the next coming wheat crop in this County, Ionia, will be interesting to the numerous readers of the Michigan Farmer, I have therefore concluded to reduce them to writing, and send them to you for publication. I much regret to say that the prospect of an abundant, or even a tolerable harvest here, next season, is not as flattering as those who earn their bread by the sweat of their face, could have wished. The crop, in the main, is not only much less stout and healthy than the last preceding one, but is considerably injured by insects—many fields being



so much so, that, as it seems to me, although their ravages be not again renewed in the spring—a thing quite improbable—good and economical husbandry will dictate their being plowed up, and put into other crops. But should the insects, as above intimated, again resume their depredations, and the season from this time forward be no more favorable than last, I much, very much, fear that, instead of being able, next fall, to have on hand and spare our usually large surplus, we shall have but a small one. Indeed, as it is, it will be, to say the least, considerably diminished. We will however hope for the best—that the winter and fly may do it no additional harm.

IONIA.

November 10, 1847.

For the Michigan Farmer.

**Cultivation of Grapes.**

Deeming the culture of the grape of much importance to us, in this State, not only as an article of luxury, but of commerce, I would urge the farmer, as well as the amateur, not only to plant grapes, but to study and practice the best method of cultivation, that he may reap a rich reward for his labor.

In the October number of the Farmer, I gave a short article upon planting and pruning grapes. Had I time, I would like to give a series of articles upon the culture of this delicious fruit, but I must content myself by giving occasionally a short article as time may permit.

The only drawback upon the successful cultivation of the grape in this State, that I know of, is the frost we sometimes experience in the spring, when the vines are in blossom.

We can ripen without the aid of glass, the Isabella, Alexander, Catawba, Sweet-water, Chas-selas, and many other varieties, some of which cannot be ripened in the open air, in the vicinity of Boston. We know this from actual experience, and for proof of the assertion, would refer to the beautiful specimens exhibited at the Detroit Horticultural Society's room, the two last years. Having the vines planted according to the directions in the October number, (or as much better as possible,) it is well to prune in the fall, and lay the vines down upon or near the ground, and cover them with long manure or earth. Covering the hardy varieties is not indispensably necessary, but I think they come out better in the spring. The buds are full and strong, and they make stronger wood than if left uncovered; for we seldom have much snow to protect them, and the continual freezing and thawing, to which they are subjected, is an injury to them. If pruned in the fall, they are much easier laid down and covered, and they may remain covered until late in the spring to retard their growth, thus rendering them less liable to injury by late frosts. If laid down without pruning, they must be taken up by the last of February or first of March, for that purpose, for it will

not answer to prune grapes in this vicinity after the first of March, unless the season is very backward.

If grapes are pruned in the spring after the sap begins to circulate, and before the growth of the wood and foliage have become sufficient to take up all the sap, they will be materially injured, if not ruined, by bleeding.

One very warm day, the last of March, 1846, seeing a gentleman at work upon his vines, I stopped to see what he was doing. Upon conversing with him, I found that through ignorance of the right time for pruning, he had, about a week previous, pruned his vines, and as they had bled profusely from the time of pruning to the time I saw him at work, fearing he might lose his vines, he was tying up the bleeding ends in rags, like so many sore fingers. I told him I thought he had a long job before him, and of no account when finished; for it would not stop the bleeding. The vines lived, but bore no fruit that season.

Last fall, I saw several Isabella and Catawba vines in a garden in this vicinity, loaded with fine looking fruit; there must have been several bushels upon the vines, and to the sight, they were beautiful, but to the taste, they were indeed "sour grapes." These vines were planted in a clay soil, and upon the borders of a broad walk; the centre of the walk was convex, to turn the water to each side and leave the centre dry, thus turning the water directly upon the roots of the vines, there to remain, to the injury of the vines, there being no way to drain it off.

Planting grapes in a clay soil is bad enough, without turning the water from the walks to stand about the roots.

J. C. H.

Detroit, December 11, 1847.

**Pumpkins.**—We commend the letter below to the notice of our agricultural friends, which we copy from the Maine Farmer.—*Farmer and Mechanic.*

Deposit, in some convenient place, from a foot to eighteen inches of clean, well dried, wheat, oat, or rye straw, and place thereon a layer of pumpkins—the best and fairest of the crop—then another *stratum* of straw, and so on till you have "stowed" your entire crop, or so large a portion of it as you may consider necessary for winter use. A gentleman in one of the midland counties of Massachusetts, writing to us under date of March 16, 1845, says:—

"I am now feeding my milch cows and other stock on pumpkins of last year's growth. They were carefully packed in straw as soon as harvested, and are in a state of fine preservation.—The butter produced from the milk is of the finest quality and richest color, and the animals themselves are in much better condition—more active and healthy than I have ever known them when restricted to dry and unsucculent food."

**A Call.**

It having been suggested to me, that it would be well for the different Horticultural and Agricultural Societies throughout this State, to become better known to each other, than they are at present, in order that they may correspond with regard to their transactions, so that each may be benefited by the other, I would hereby respectfully request the Secretary of each Horticultural and Agricultural Society, or Farmers' Club, within the borders of this State, to forward to me at Detroit, the name of their society, its location, when organized, the names of the officers, number of members, together with such of their transactions as they think may be of public benefit.

If any new seedling fruits or vegetables, or any new implements of husbandry or improvements in any of the old, have come to their notice, they will please describe them; and we will endeavor to make such use of the correspondence as will be of the greatest benefit to the greatest number of our Horticultural and Agricultural friends.

J. C. HOLMES,

Pres. Detroit Horticultural Society.

Detroit, December 13, 1847.

**Effects of Plaster.**

The editor of the Albany Cultivator, in his account of a recent tour through parts of Massachusetts, speaks in the following terms of the effects of plaster upon light and exhausted lands. By the way, one of the names here mentioned, brings to mind many an incident of our youthful days:

Messrs. WELLS & PAOLI LATHROP, of South-Hadley, have a farm of 187 acres. It is within half a mile of the falls in the Connecticut, where a dam is soon to be built for the purpose of obtaining a large water-power—a power which it is calculated will be nearly four times greater than that of Lowell. The work has been commenced and is rapidly progressing, and it is expected that in the space of a few years a city will here rise that will number its inhabitants by tens of thousands. The enterprise has already had the effect to enhance the value of real estate in the neighborhood.

Messrs. Lathrop purchased this farm in 1833, at the low price of \$5,600. It was supposed to be "run out," and only yielded thirty tons of hay annually. The highest estimate of its capabilities by its former owner, was, that it would keep twenty-five cows, if devoted wholly to that purpose. Messrs. L. have so increased its production that for the last ten years it has averaged a hundred tons of hay yearly, and supported from thirty-seven to forty head of cattle, with three or four horses. This improvement has been produced by no extraordinary expenditure. The first start was given by the application of plaster.

A considerable part of the farm consists of hills

and knolls—frequently rather steep—which seem to have been formed by the abrasion or washing away of portions of the elevated plain to which the whole tract originally belonged. It is evidently an alluvial formation, though much older than the present "intervale."

The strata composing this plain are various in composition. A large portion of the surface, as we have mentioned in the first part of our article, is sandy, but it is underlayed, at various depths, by strata of an argillaceous character. In some places, as on the sides of such hills as we have described, these strata crop out and form the surface soil. In all such situations, the effects of plaster are almost wonderful. Messrs. L. state that when they purchased their farm, the grass on nearly the whole of it was thin and of poor quality. The hilly portion of it was pastured, but the stock obtained only a scanty supply of "mouse-ear and poverty-grass." The application of about two bushels, or a hundred and twenty pounds of plaster per acre, soon changed the character of the herbage, and the barren hills became the finest grazing lands. Since the first application of plaster, an annual dressing of about sixty pounds per acre has been given; and this is all the land has received, in the shape of manure except what has been dropped by animals while being kept on it. The production of feed has been remarkable, and there is still no diminution, but rather an increase in its quantity.—It is chiefly spire-grass, or "Kentucky blue-grass," (*Poa pratensis*), and white clover, and is very sweet and nutritive. We have seldom seen pastures that would carry more stock per acre. The best part of them will support a cow per acre.

We were told of other instances, equally striking, of the effects of plaster on similar soil. Mr. JOSIAH BARDWELL, of South Hadley, for several seasons summered a horse, a yoke of oxen, two cows, and a heifer, on four acres and three quarters. He had nine acres and a half of meadow, from which he cut one year, at two cuttings, thirty-seven tons of hay. The pasture had a dressing of plaster, and nothing else, every year—the meadow had some additional manure.\*

Messrs. Lathrop were able at once, by the use of plaster, to stock their farm heavily. Of course they were soon provided with a large amount of manure, which being applied to the portion of the farm on which a rotation of crops was followed, in a short time raised it to a high state of fertility and productiveness.

**Hessian Fly.**—We learn that this insect is at work in the wheat-fields in various parts of the State. From the fact that we hear of its depredations in almost every section of the State, we conclude, that but few, if any, counties are entirely exempt from the calamity.

\*See an account in the Cultivator, p. 30, for 1846, of the effects of plaster on Mr. Chapin's farm, in Springfield.



### The Culture of Trees.

BY E. HARKNESS.

**"Pruning trees makes 'em grow."**—At least every body says so, and what every body says must be true. Such seems to be the general sentiment on this subject. But we are satisfied, from long experience and a good deal of observation, that in nine cases out of ten at least, more harm than good is done by pruning. A good cultivator will go through his orchard and prune a little *very little*, every season, not to make it grow, but for the purpose of clearing out such limbs as show signs of decay; also all water sprouts and sprouts at the root of the trees; also all limbs which cross each other and chafe.

"How do you manage your trees so as to give the tops such a uniform and beautiful appearance?" "How do you make them grow so fast, and have the bark look so bright and lively?"—These are questions we have been called upon to answer a hundred times, perhaps, within the last year, and we now proceed to answer them in as plain a manner as practicable.

First, as to the form of the tops. We prefer trees of two seasons' growth from the graft, from three and a half to five and a half feet high, and when we transplant them we take off all the side limbs, leaving a single stem; for when a tree is transplanted it will bear a good deal of trimming. During the first season a limb will shoot out from each bud of the last year's growth. The uppermost of these limbs will grow nearly straight upwards, while those lower down will turn out nearly at a right angle with the stem. The next spring after transplanting we cut out the centre limbs which have grown upward, and leave from three to six of the side limbs which have the right curve and are in the right position to form the future arms or main limbs of the tree. We care not if these limbs start from the main stem as low as three feet from the ground; for experience has shown that low trees thrive much the best. Most people want the tops of their trees high enough for a horse to walk under them. It is very desirable to have them so; but the great error is in attempting to force them up to that height too soon, by pruning off the side limbs. If the first set of arms do start from the main trunk as low as three feet, it will not be long before the top can be raised to six feet from the ground by gradually clearing away the under limbs as fast as they show signs of decay.

The cutting away of young, healthy, and growing wood, is a most pernicious practice; and a little reflection will teach any reasonable man that it is absurd in the extreme. The leaves of all trees form the laboratory, in which the food intended for their sustenance and growth is prepared; and this food, when prepared, descends through the inner bark and makes its deposit of new wood to the very extremities of the young roots. It is plain, then, that the taking away of a single healthy branch, or even a single leaf,

takes away, to some extent, the capacity of the tree to grow.

"But what will you do with the sprouts; will you let it grow just as it pleases?" We answer, if you do not trim a tree at all, it will never sprout. In giving a proper form to the top of the young tree, the first and second year after transplanting, you will be compelled to violate nature so far that the tree will sprout a little, but it will soon get over it if you are sparing with the knife. Besides, the attempt to force the top of a tree up to six feet, in the first instance, by depriving it of side limbs, often destroys it by making the trunk too feeble. It is common to see the stems of young trees in the orchard full of sprouts; this is because they have been trimmed too high and too much, and the tree is making an effort to supply that of which it has been deprived. In an open situation, all trees will throw out strong side limbs, and form large trunks in proportion to their height. Even the pine, so renowned for its towering height, puts forth strong side limbs when it happens to stand in an open or bleak situation. Why then should we deprive our fruit trees of the means of sustaining themselves under similar circumstances? We often see the stems of young orchard trees forming a "graceful curve," somewhat in the shape of a French dancing master in the act of picking up a lady's fan. Do you know what ails them?—They have been trimmed; and the only way to restore them to a perpendicular attitude and to their natural proportions, is to cut them off and let them take a fair start from the ground in their own way.

"But would you not tie up a leaning tree to a stake?" We say that a tree is worthless when it requires a stake. If it will not stand alone when taken from the nursery, you may be sure that it has either stood in a thicket or been unmercifully trimmed. In either case it is better to cut off so much of the upper part of the top as will enable it to stand alone, than to tie it up to a stake.

These are all the remarks it seems necessary to make on the subject of trimming.—*Prairie Farmer.*

**New Brick Making Machine.**—A late English paper thus describes a machine for the manufacture of bricks, which has been lately patented by a Liverpool firm:

"The clay, without any previous preparation, is put into the machine where, by the action of two sets of cutters, it is prepared and carried forward by the aid of buckets or elevators, and deposited into a hopper. It then descends upon a revolving table set with dies, into which it falls, and after being closely pressed, is driven by a slight movement of the machinery to the surface of the table again, from which it is taken by the carriers. The bricks are then ready, without any further process, for the kiln, saving all the

time necessary in the ordinary mode of preparation in the pit and drying on the ground. Shrinking is thus considerably lessened, and the article, it is said, is of more perfect shape, and much superior to those completed in the ordinary manner. It is calculated that the machine, which completes two at a time, will turn out at an average, thirty per minute. The inventor is an enterprising mechanic. It is stated that a railway contractor, who has immediately to manufacture 2,000,000 bricks for a railway in construction, has purchased the machine.

#### Corn and Potato Crop.

*Indian Corn*—Which it has been said "forms the back bone of our husbandry," and it might have been added, of the people, too, in a great degree—has given a full crop. It will be remembered that this grain was, the last winter and spring, in great demand, and brought high prices for exportation to the British islands. This circumstance induced farmers in the eastern part of the country to plant very largely of this the present year. The product has been satisfactory, and we trust there will be no cause of complaint on the score of profits; but it should not be forgotten that the high prices of last year were occasioned by an almost unprecedented scarcity of breadstuffs in England, Scotland and Ireland, and with the good crops which have there, as well as on the continent of Europe been obtained the present year, no such extraordinary demand can be expected to arise. Still the article has now been fairly brought into use in the countries mentioned; and from our improved modes of preparing the grain by kiln-drying, and the nice manner which is adopted of putting up the meal, it may be confidently expected that its consumption will continue, and that it will after a while be generally esteemed. In every view of the case we think there is a better prospect of opening a permanent and profitable trade with England in Indian corn, than with any other article of breadstuffs; because it cannot be successfully produced there, and is not much cultivated in any of the European countries, though wheat is grown largely by all those countries, and many of them have usually a large surplus for exportation.

Of the potato rot, we hardly know what to say. From what we have heard, it appears to have occasioned more damage in the eastern part of the country and in this State than heretofore.

We have heard of several instances where early kinds planted on favorable soil, early in the season, got fully matured, so that the vines had died naturally, at the time the blight occurred. In such instances we believe the crop has remained sound; though on the same farms, the same kinds that were planted so late that the vines were killed by the blight, have rotted to a great extent.—*Albany Cultivator*.

*Fall and Winter Ploughing*.—The idea that anything is gained by the decomposition of sward by late fall ploughing, is, we are convinced, a mistake. On the contrary, every one who has had the opportunity of observing, may have seen that sward which is broken up after the weather has become warm, and the grass somewhat started in the spring, rots much sooner than that which was ploughed in the fall or winter.

But clayey soils, which have been well drained, may be greatly improved by fall ploughing, if it is done in the right way. The ground should be thrown into narrow ridges, which should run in such a direction as will most readily turn off the water from the field. Let two furrows, as deep as can well be ploughed, be turned together, in the form of what are called "back furrows," and the whole field be ploughed in this way.—This will expose a large portion of the soil to the action of the frost and air. The ridges will be dry, and the soil being frozen and thawed while in this state, it will become loose and friable, and on cross-ploughing the ridges, when the proper time arrives for seeding, the soil will be mellow, and in excellent condition for a crop. This course has produced good crops of grain and vegetables on land which would yield little or nothing in any other.—*Alb. Cultivator*.

*Mr. Taintor's Imported Merinos*.—We had lately an opportunity of seeing the Merino sheep imported in 1846, by John A. Taintor, Esq., of Hartford, Ct. In procuring these sheep, Mr. T. spared neither pains nor money. He personally examined the most noted flocks of France and Spain, and made his own selections, whatever were the prices demanded. His principle object was to procure such sheep as were calculated to produce the largest quantity of wool of a medium quality, this being in his opinion the class of sheep from which the most money could be realized by farmers in general in this country.

On looking at these animals, we were first struck with their extraordinary size, they being much larger than any sheep of the Spanish race that we have before met with. Some of the ewes weigh about 200 pounds each. The symmetry, too, of some of them is quite remarkable—their straightness and breadth of back, and fullness of chest, almost equalling the best English breeds. Their wool is uncommonly close, and every part of the body is thickly covered. They were not washed at the last shearing, but their fleeces as taken off, averaged 16 pounds each—of one year's growth.

*Mutton*.—I do not agree at all with you, that Cotswold or Leicester would improve the quality of mutton and wool, unless the mutton be raised for sale. For eating, no mutton, in my humble opinion, (and I have eaten some mutton in my travels,) will compare for fineness of grain, and

flavor and juiciness, with Merino, or grade Merino, and I have no doubt that as much Merino mutton or wool can be raised upon the same quantity of pasture or feed, as of any other breed whatever, and the wool does not require any praise at my hand. Besides, your Maine correspondent, I. McG., is in the immediate neighborhood of the best flocks of that breed.

ROBERT CHISOLM.

South Carolina, 1847.

From the Boston Cultivator.

#### Fruits.

MESSRS. EDITORS:—It has been said that nothing in agriculture gives so much value to the land it occupies, as a good fruit tree, adding in many instances, an hundred per cent. to its value. To this I heartily assent; yet it is, but here and there we find a farmer that thinks it worth his while to give attention to so important a branch of what may well be denominated the natural employment of man. Can any thing better adorn and give character to the farmer's domain, than a choice and well cultivated orchard? And what is more delicious and wholesome than its yearly produce?

"He who owns a rood of proper land in this country," says Downing, "and, in the face of all the pomonal riches of the day, only raises crabs and choke pears, deserves to lose the respect of all sensible men."

"I know," said Doctor Johnson, "a clergyman of small income, who brought up a family very respectably, which he chiefly fed on apple dumplings."

There is a noble, large, sweet apple, known in many parts of New England, which might properly be denominated the *bread fruit* apple. When this apple is properly baked, two will suffice for a meal with milk. There is a poor man with nine children, and one at the breast. His family are fed upon the fruit of one of these trees, in the season of it.

#### Harvest Prospects.

The *Agricultural Gazette* of August 28th, contains a tabular report of the grain crops in each of the counties of England and Scotland, evidently compiled with much industry and care. From an examination of this report, we conclude that the produce of wheat will be upon the whole, considerably above an average, and the quality good; although in a few localities the yield seems scarcely an average, the straw mildewed, and the quality indifferent. Barley appears almost universally an unusually heavy crop. Oats moderate. Beans and peas generally inferior, in some instances a failure.

We likewise learn, from a tabular report in the *Gardener's Chronicle*, that the potatoe crop in England and Scotland was generally healthy; although disease had shown itself in several dis-

tricts, but in a modified degree. We infer, however, that it was becoming more apparent as the season advanced. Still there is reason to hope for a good crop; but the quantity cultivated is small.

*Fat animals and large crops result alike from abundance of proper food.*—The profits of crops, as well as cattle, depend mainly upon the return they make for the food and labor bestowed upon them. The man who grows a hundred bushels of corn, or makes a hundred pounds of meat, with the same means and labor that his neighbor expends to obtain fifty bushels or while the latter merely lives, the former, if prudent, must grow rich. He gains the entire value of the extra fifty pounds. The disparity in the profits of agricultural labor and expenditure is not a visionary speculation—it is a matter of fact, which is seen verified in almost every town. We see one farmer raise 80 bushels of corn on an acre of land, with the same labor, but with more foresight in keeping his land in good tilth, and feeding better his crop, than his neighbor employs upon an acre, and who does not get 40 or even 30 bushels. This difference results from the manner of feeding and tending the crop.—*Vl. Chronicle.*

We learn from the Portsmouth (N. H.) Journal, that the grand desideratum of applying steam and water power to propel common stocking looms, on which vast sums of money and much time have been unsuccessfully spent in England, has at length been discovered.

The writer remarks:—On Wednesday last, one girl attended three looms, and spending much of her time in sitting to watch the operation, she presented at night 23 pairs of stockings, and 22 pair of drawers as the result of her day's work. 12 pair of stockings is a girl's day's work on the common hand looms.

Some idea of the saving by the new invention may be formed from the fact that the expense of knitting on Wednesday was less than a dollar, while the same work performed on hand looms would cost over five dollars.

We learn that any hand loom may be fitted for operation by power at an expense of \$30 to \$40.

*Black and white Paints.*—Tools, wagons &c. painted black, absorb the sun's rays, become hot, and warp and crack. Painted white, they reflect, and do not absorb the rays, consequently do not become hot, and they remain uninjured by warping. Hence, all wooden articles should be painted of some light color.—*N. Y. Farmer & Mechanic.*

*Mr. Lyttleton Physic's Wash for Peach Trees.*—Four quarts soft soap, one pint common salt, and a half pint saltpetre, to a common ten quart pail full of hot water.

Instead of water, some would substitute urine.



**Agents Wanted.**

We want, immediately, two or three efficient travelling agents for the Farmer, who will devote themselves exclusively to its interests.—Good terms will be given.

**Remittances.**

All remittances for past dues, including those for the present volume, will continue to be made to "Williams & Hurlbut." Subscribers in arrears will oblige us by sending their respective amounts within a month from this date. It is hoped, under the circumstances, that none will make it necessary to repeat this reasonable call.—Whenever it would be a matter of convenience, remittances for the next volume may be enclosed in letters to us, which we will pass to Mr. Isham.

Remittances may be sent under the frank of Post-masters. Receipts will be returned whenever requested.

Those clubs and individuals who did not receive our propositions for the next volume, in season to enable them to forward names and money by the first of January, can have the privilege of doing it after that time, provided "all due diligence" be used. In most cases remittances can be made through the post-masters.

We invite contributions to our columns from our agricultural friends. Their co-operation is the very thing we need. We want, as far as possible, to give the Farmer a distinctive character, as a product of Michigan. Let communications, however, abound in *matter-of-fact*, and be as *brief* as possible.

**Sheltering Animals.**—A great deal is lost by the exposure of animals in cold and stormy weather. They require much more food, and are far less profitable. Cows will give much less milk than when housed, and other animals are, with much more difficulty, kept in condition.

**Wool Manufacture.**—The Middlesex company at Lowell, daily consume about *six thousand* pounds of wool. The company has already purchased of the present year's clip, nearly *two million* pounds.

**Cheap Beds.**—In Portugal, the husks of corn are used as a substitute for feathers, and are prepared, and sold by the peasantry to those who purchase, at a merely nominal price. As soon as the corn is ripe, the husks are selected—in a bright, warm day, and dried in the shade. None but the finer and more flexible are taken, and those that are nearest the corn are preferred, as they are generally found to excel in these qualities. As soon as the humidity is expelled, the hard ends are detached by means of an instrument purposely prepared, and the husk is then drawn through a hatchel, or comb, which divides it into stribes of the requisite fineness. This is all that is necessary, so far as the preparatory process is concerned.

**Market Intelligence.****DETROIT PRICE CURRENT.**

GRAIN.—Wheat at city mills, bush.	\$0 75@80
Indian Corn,	37 1/2
Barley, at brewery,	37 1/2
Rye,	51@53
Oats,	22
Beans,	62 1/2@75
PROVISIONS.—Flour, bbl. from wagons,	\$ 4 50@4 75
Buckwheat, 100 lbs.	1 25
Indian meal, "	27 1/2
Hogs, 100 lbs.	\$3 00@3 50
Beef, "	\$2 00@2 00
Lard, lb. retail,	08
Butter, roll,	12 1/2@14
" retail,	16@18 1/2
Cheese, 100 lbs., Michigan,	\$5@6 25
" " Hamburg,	7 50@8 00
Eggs, doz.,	14
White fish, bbl.,	6 00@7 00
Potatoes, bush., retail,	50
Onions,	50
Honey, lb.,	12 1/2
SUNDRIES.—Wood, hard, cord,	\$2@2 50
Hay, ton,	\$8@9 75
Cranberries,	1 00
Apples, bushel,	75
" common,	37 1/2
" dried,	1 25
Peaches, dried,	\$1 75@2 00
Clover seed, bush.,	\$4 00
Herd's grass do. do.	1 00
Flax " "	62 1/2
Salt, bbl.,	\$1 87 1/2
Lime, "	75

**TO THE FARMERS OF MICHIGAN.**

The subscriber, having been announced as the future Editor of the Michigan Farmer, takes occasion to state, in brief, his views of what a periodical of this kind should be.

In the general, it should embody, in a comprehensive form, information relating to improvements in agriculture in all its departments,—whether such improvements have respect to the principles of the science, their practical application, or to the implements of husbandry.

There should be *originality*, to some extent, in its columns. Its conductor should be able to turn to profitable account the multitudes of facts which are continually accumulating under his observation, methodizing, and bringing them into subserviency to some practical end, and thus opening new and untrodden fields to the enterprising and the industrious.

It should be adapted to the popular mind—not so scientific as to be unintelligible to the mass, nor so unscientific as to exert no elevating influence upon them.

Especially should it be adapted to its locality, to peculiarities and varieties of soil and circumstances. A publication well suited to the circumstances of an old agricultural district, would be but ill adapted to the wants and necessities of a new country like our own.

It should give, as far as possible, a true and impartial account of the state of the crops and of the markets, and should be eagle-eyed to detect, and prompt to expose the tricks of speculators.

It should, he thinks, also contain a spice of general intelligence, so condensed, that it will not, to any appreciable extent, encroach upon the agricultural interest, and yet sufficient for all the purposes of general information.

The Farmer will be published semi-monthly, as formerly, after the first of January, when a new volume commences.

**TERMS.**

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After three months,	1.25
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After nine months,	1.75

To clubs the same terms will be allowed as heretofore, viz: for every four dollars remitted strictly in advance, five copies will be sent, and for larger sums in the same proportion.

No subscription taken for less than one year, nor discontinued till all arrearages are paid.

WARREN ISHAM.

Detroit, Dec. 1, 1847.

